



DHEC's Office of Solid Waste Reduction and Recycling

For Your Information...

Environmental/Health Benefits of Recycling

It's just right to recycle.

It's right when you consider that recycling is good for the environment, human health and the economy. And it all starts with you.

The recyclables that you place in your curbside bin or take to the drop-off center begin a ripple effect of benefits. To start with, recyclables have value. That's right. By turning waste into valuable raw materials, recycling creates jobs, builds more competitive manufacturing and adds significantly to the nation's economy (see the "FYI: Economic Benefits of Recycling" fact sheet).

Recycling also promotes the sustainable use of our natural resources. Recycling saves energy. Recycling reduces pollution. Recycling, in short, is working.

There are many environmental/health benefits associated with recycling according to the National Recycling Coalition.

- **Recycling reduces the need to build landfills or incinerators.** As such, recycling helps protect the environment. And, typically, no one wants a landfill built in his or her community.
- **Recycling saves natural resources like minerals, water and timber.** When one ton of

steel is recycled, for example, 2,500 pounds of iron ore, 1,400 pounds of coal and 120 pounds of limestone are conserved. Recycled paper supplies more than 37 percent of the raw materials used to make new paper products in the U.S. Without recycling, this material would come from trees.

- **Recycling reduces or eliminates pollution by reducing the need to extract, move and process raw materials.** In the United States, processing minerals contributes almost half of all reported toxic emissions from industry, sending 1.5 million tons of pollution into the air and water each year. Recycling can significantly reduce these emissions. Recycling results in a net reduction in ten major categories of air pollutants and eight major categories of water pollutants.
- **Manufacturing products from recycled materials saves energy.** It takes 95 percent less energy to make aluminum from recycled aluminum than it does to make it from virgin materials. It takes 60 percent less energy to make recycled steel, 40 percent less to make recycled newspaper or recycled glass, and 70 percent less energy to make recycled plastics. These savings far outweigh the energy created as a by-product of incineration or disposing of the materials in a landfill.

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Waste prevention and recycling can result in significant reductions in greenhouse gas emissions.

South Carolina recycled more than 1.2 million tons of municipal solid waste in FY 2005 resulting in an environmental impact equivalent to: eliminating electricity usage by 571,433 households for one year; or growing 114,140,137 tree seedlings for 10 years; or conserving 507,000,067 gallons of gasoline.



- **Recycling helps reduce our reliance on foreign oil.** Recycling helps us do that by saving energy.
- **Recycling reduces greenhouse gas emissions.** Recycling helps reduce greenhouse gas emissions (e.g., carbon dioxide and methane) that may contribute to global climate change by (1) decreasing the energy needed to make products from virgin materials and thereby reducing the burning of fossil fuels (2) reducing emissions from landfills and incinerators, which are major sources of methane gas emissions and (3) slowing the harvest of trees thereby maintaining the carbon dioxide storage benefit provided by trees. A national recycling rate of 30 percent reduces greenhouse gas emissions as much as removing nearly 25 million cars from the road for one year.
- **Recycling stimulates the development of green technology.** Recycling allows for and encourages the development of more environmentally friendly products. The vast supply of low-cost recyclables from local collection programs has spurred many businesses to develop cutting-edge technologies and products. Waste tires, for example, are used in many applications including rubberized asphalt for paving roads.

Didn't think you could make a difference? If you recycle, you do.

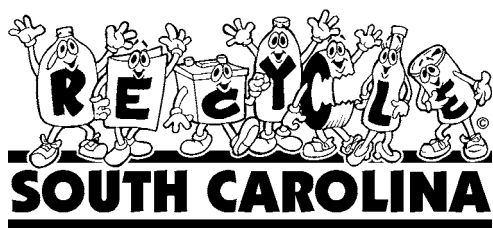
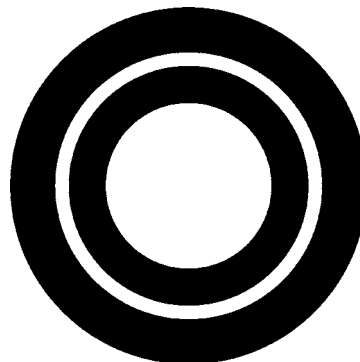
Remember, it's just right to recycle.

SOURCE: The National Recycling Coalition, <http://www.nrc-recycle.org/resources/enviroben.htm>.

New Uses for Old Tires

South Carolina is a national leader in using tires to make rubberized asphalt through the work of the Asphalt Rubber Technology Service (ARTS) housed at Clemson University. ARTS is funded through a grant provided by the S.C. Department of Health and Environmental Control.

For more information about ARTS, visit www.ces.clemson.edu/arts.



Office of Solid Waste
Reduction & Recycling
1-800-768-7348 ● www.scdhec.gov/recycle

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